Docket No. YOR920030225US1 *PATENT*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **Maison et al.**	§	
	§	Group Art Unit: **2626**
Serial No. **10/637,219**	§	
	§	Examiner: **Neway, Samuel G.**
Filed: **August 8, 2003**	§	
	§	
For: **Task Specific Code Generation for Speech Recognition Decoding**	§	
	§	

35526
PATENT TRADEMARK OFFICE
CUSTOMER NUMBER

Commissioner for Patents
P.O. Box 1450
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REPLY BRIEF (37 C.F.R. 41.41)

This Reply Brief is submitted in response to the Examiner's Answer mailed on April 21, 2008.

No fees are believed to be required to file a Reply Brief. If any fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 50-0510.

RESPONSE TO EXAMINER'S ANSWER

Appellants respond herein to the assertions made by the Examiner in the answer mailed April 21, 2008. Appellants reproduce claim 1 below for convenience:

> 1. A method, implemented in a data processing system, for generating task-specific code for pattern recognition, the method comprising:
>
> receiving task-specific input system data of a pattern recognition system; and
>
> generating task-specific code for the pattern recognition system based on the task-specific input system data, wherein the task-specific code includes computer language suitable for compilation.

I. Ground of Rejection 1

The Examiner withdrew the first ground of rejection based on 35 U.S.C. § 101. Appellants thank the Examiner for further narrowing the issues on appeal.

II. Arnold Does Not Generate Task-Specific Code Based on the Task-Specific Input System Data (All Claims)

The Examiner states that:

> Appellant further quotes Arnold as stating in paragraph [0020] "... ready to use models, portions or updates". This quote is inaccurate as Arnold never explicitly cites 'ready to use models, portions or updates' in [0020] or anywhere else in the specification. In [0020] Arnold discloses employing ""dynamic grammars" as a driving mechanism in providing the necessary models or portions or updates of a model to the client device". The server picks only the necessary models (language models) to send to the client and the client uses these models to update or transform its existing models, this is similar to Appellant's generating a code based on a task-specific input system data (such as language models).

Examiner's Answer of April 21, 2008, pp. 10-11.

Appellants agree that *Arnold* does not explicitly use the term "ready to use." However, *Arnold* clearly teaches minimizing the amount of work performed client-side by using as much non-changing software as possible. The entire point of *Arnold* is to minimize, to the extent possible, the amount of computing power needed at the client.

The Examiner believes that *Arnold* teaches that "the client uses these models to update or transform its existing models," and that this feature is "similar to" "generating a code based on a task-specific input system." However, the actual claim language is, "generating task-specific code for the pattern recognition system based on the task-specific input system data." In actuality, this claim language is not similar to *Arnold.*

Appellants assume, *arguendo*, that the Examiner's characterization is correct, that "the client uses these models to update or transform its existing models." However, the generated models have *already been compiled* and are "ready to use" with the existing models in the client. Thus, *Arnold* is not "generating task-specific code for the pattern recognition system based on the task-specific input system data." Accordingly, the proposed combination, considered as a whole, does not teach or suggest all of the features of claim 1. Hence, the Examiner failed to state a *prima facie* obviousness rejection against claim 1 or any other claim in this grouping of claims.

III. Arnold Teaches Away from the Claimed Invention (All Claims)

The Examiner states that:

> Appellant has also submitted that adding the teaching of Poirier to Arnold would cause Arnold to become inoperative because adding "the teaching of Poirier to that of Arnold would cause Arnold to become inoperative because a request from a client would no longer be ready to use and require compilation, thereby eviscerating the current method of Arnold" as Arnold teaches away from heavy processing on the client computer (Appeal Brief, p. 14, paragraph 1). However this argument is not persuasive at least because Arnold discloses that the server and the client could be each implemented using "a general purpose computer". Thus any processing that can be performed on a general purpose computer such as compiling and executing source code could be performed on Arnold's client device.

Examiner's Answer of April 21, 2008, p. 11.

The Examiner's last statement belies the fundamental problem with combining *Arnold* and *Poirier.* The Examiner believes that *any processing*, including compiling and executing source code, could be performed on *Arnold's* client device. However, the entire point of *Arnold* is to *specifically avoid* imposing this burden on the client. *Arnold*, paragraphs 0005-0006. Thus, the Examiner is effectively ignoring the teachings of the references *as a whole*, and instead is looking to only bits and pieces of the teachings of the references. However, *KSR Intl.* requires that the claims be considered in view of the teachings of the references as a whole. As a whole, the combination of references makes no sense because *Arnold* specifically desires to avoid burdening the client.

Stated differently, because *Arnold* teaches minimizing client-side computing resources, *Arnold* directly teaches away from the claimed feature of, "wherein the task-specific code includes computer language suitable for compilation." The Examiner believes that *Poirier* teaches this claim feature, and that when *Poirier* is combined with *Arnold*, claim 1 is obvious in view of the combination. However, by the very nature of *Arnold*, *Arnold* *seeks to minimize processing power at the client*. *Arnold*, paragraphs 0005-0006. Thus, one of ordinary skill would *specifically avoid* providing "source code" to the method in *Arnold*, as posited by the Examiner ("computer language suitable for compilation" as claimed), because compilation of that source code would require an excessive processing burden that should not be imposed according to *Arnold*.

For this reason, *Arnold* specifically teaches away from the Examiner's proposed combination. Accordingly, the Examiner failed to establish a proper reason to achieve the legal conclusion of obviousness of the claims in view of the references considered together as a whole. Hence, the Examiner failed to state a *prima facie* obviousness rejection against claim 1 or any other claim in this grouping of claims.

IV. The Examiner Failed to Provide a Sufficient Reason To Combine the References (Claims 1-4, 6, 7, 11-14, and 21-23)

The Examiner states that:

> Appellant also argues that there is no proper reason given by the Examiner "to achieve the legal conclusion of obviousness of claim 1 under the standards of KSR Intl." (Appeal Brief, p. 14, paragraph 3). The Examiner respectfully disagrees because a teaching disclosed in Poirier (col. 2, lines 26-36) to combine the two references is given as satisfying the basic requirements of a prima facie case of obviousness under KSR. Poirier discloses that a less specified linguistic service with a preexisting source code (similar to Arnold's not yet updated language model) is modified to produce a new source code for a more specified linguistic service (similar to Arnold's updated language model). This teaching in Poirier would have led one with ordinary skill in the art at the time of the invention to combine Arnold and Poirier to arrive at the claimed invention.

Examiner's Answer of April 21, 2008, pp. 11-12.

The Examiner believes the reason to combine the references is that, "Poirier discloses that a less specified linguistic service with a preexisting source code (similar to Arnold's not yet updated language model) is modified to produce a new source code for a more specified linguistic service (similar to Arnold's updated language model)." However, again, the Examiner has only posited a set of facts and a proposed combination. No actual reason to compel the *legal conclusion* of obviousness has been set forth.

Appellants demonstrate this fact in another manner. Assume, *arguendo*, that the Examiner's statement is correct. The Examiner has stated that one of ordinary skill *can* combine the references. However, the Examiner has not stated ***why*** one of ordinary skill ***would*** combine the references in the first place, *much less* stated why one of ordinary skill would reach the *legal conclusion* that the claim is ***obvious*** in view of the combination. Instead, the Examiner has only provided that the references are capable of being combined.

Additionally, even had the Examiner stated why one of ordinary skill would combine the references, the Examiner has not provided a rational underpinning to reach the *legal conclusion* of ***obviousness***. The mere fact that one of ordinary skill would combine the references does not mean that the present claim is obvious. For example, one of ordinary skill could combine the references to achieve a different purpose than the claimed invention.

Still further, as shown above, the teachings of *Arnold* are *directly contrary* to the teachings of *Poirier* when those two references are considered as a whole in view of the claimed invention. Therefore, no rational underpinning exists to achieve the legal conclusion that claim 1 is obvious in view of the references considered as a whole. Accordingly, under *KSR Intl.*, the Examiner failed to state a *prima facie* obviousness rejection against claim 1 or any other claim in this grouping of claims.

V. Lanning fails to Teach Profiling the Decoder Program (Claims 8-10, 15, 16, and 24)

Claim 8 is as follows:

> The method of claim 7, further comprising:
> profiling the decoder program to form a profile; and
> determining whether the decoder program is optimized.

The Examiner states that:

> Appellant also argues that Lanning fails to teach profiling a source code and determining whether the source code is optimized. However, Lanning discloses software developers "tuning" their code for a particular operation (col. 1, lines 24-31). Since there will be no need to optimize the software if it is already tuned to a particular operation, "tuning" implies some kind of checking mechanism to verify if the software has already been optimized. As to the argument that "Lanning does not teach creating profiles from the code to be tested as is currently claimed", Appellant is equating Lanning's "profile" to the profile as disclosed in Appellant's specification. However Lanning's profile actually reads on Appellant's "typical input parameters" (Appellant specification, page 5, lines 10-12) and the element that read on Appellant's profile is Lanning's run-time information which is the result of the profiling process (Lanning, col. 3, lines 1-10). Lanning disclosure of profiling a source code and forming the run-time information reads on Appellant's limitation of "profiling the decoder program to form a profile" because Appellant's profile is disclosed as the result of the profiling performed on the code ("a program is first written and run with typical input parameters, and an execution profile is generated. This profile indicates such events as cache-misses ... ", Appellant specification, page 5, lines 10-14).

Examiner's Answer of April 21, 2008, pp. 12-13.

The Examiner believes that *Lanning's* teachings regarding "tuning" code for a particular operation implies some kind of checking mechanism to verify if the software has already been optimized. The Examiner is incorrect.

Lanning teaches that "tuning" is synonymous with "optimizing." *Lanning*, col. 1, ll. 23-31. Thus, when *Lanning* uses the term "tuning," *Lanning* is only describing "optimizing." As set forth in the appeal brief, *Lanning* describes an optimization process, and not a determination process prior to beginning the optimization process as claimed. Accordingly, the proposed combination, considered as a whole, does not teach or suggest all of the features of this grouping of claims.

Additionally, the Examiner's assertions regarding the characterization of *Lanning's* profiling source code vis-à-vis claim 8 are not correct. The Examiner compares "profiling a source code and forming the run-time information," as asserted to be in *Lanning*, reads on "profiling the decoder program to form a profile," as claimed. This assertion is incorrect.

The claim feature is "profiling the ***decoder program***." Assuming, *arguendo*, that the Examiner is correct, *Lanning* teaches profiling ***source code***. While claim 8 requires, through claim 1, that the decoder program is the task-specific code, which is a computer language suitable for compilation, the fact that *Lanning* teaches profiling source code is not enough to achieve the claimed invention. A simple teaching regarding profiling of source code provides insufficient basis to reach the conclusion that the combination reads on claim 8. Even less, this teaching provides no reason to achieve legal conclusion of obviousness in view of the references considered as a whole, and still less in view of the fact that *Arnold* teaches away from the combination of *Arnold* and *Poirier*.

For this reason, the proposed combination, considered as a whole, does not teach or suggest all of the features of claim 8, and also the Examiner failed to establish a proper reason to achieve the legal conclusion of obviousness of the claims in view of the references considered together as a whole. Accordingly, the Examiner failed to state a *prima facie* obviousness rejection against claim 8 or any other claim in this grouping of claims.

VI. Remaining Issues

Any remaining issues raised by the Examiner are rebutted in the appeal brief.

CONCLUSION

As shown above, the Examiner has failed to state valid rejections against any of the claims. Therefore, Applicants request that the Board of Patent Appeals and Interferences reverse the rejections. Additionally, Applicants request that the Board direct the Examiner to allow the claims.

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